



NETWORK ON BEHAVIOURAL  
RESEARCH FOR CHILD SURVIVAL  
IN NIGERIA

**(NETBRECSIN)**

2025

**BOOK OF  
ABSTRACTS**



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# Executive Summary

It is always my pleasure to write the executive summary of the NETBRECSIN Book of Abstracts. This edition covers the results of postgraduate researches carried out in Nigerian universities. The research outcomes were presented at the July and December 2025 meetings of NETBRECSIN.

The researches presented in the 2025 Book of Abstracts focused on maternal, newborn and child care, including Immunization.

Maternal, newborn and child care: A study in Jos, Plateau State, reported that most mothers did not have good knowledge of donor human milk and were not willing to use it. Also in Jos, high utilization of antenatal care and maternal immunization was recorded in Abba Na Shehu Ward of Jos North Local Government Area. In Sokoto State, conflict and insecurity severely undermine maternal food security and dietary diversity in Sokoto State. This underscores the need to strengthen local resilience, improve safety, and support alternative livelihoods that are essential to enhancing maternal nutrition in conflict-affected communities.

The study in Ibadan, Oyo State highlighted the fact that interventions to improve maternal outcomes should move beyond messaging to men and incorporate male-friendly service design, workplace policies, and community-level norm-shift strategies.

Immunization: In Ibadan, Oyo State, substantial gaps were identified in the use of artificial intelligence in vaccination programmes among health workers despite positive insights. Key factors affecting integration of artificial intelligence in immunization programmes included inadequate training, poor infrastructure, and limited governmental investment in digital health systems.

The information contained in this book of abstract will be very useful to the Federal Ministry of Health and Social Welfare (FM OHSW), development partners and other relevant stakeholders, for programming for improved maternal, newborn, child, and adolescent health in Nigeria.

**Prof. Alphonsus R. Isara**  
*Secretary, NETBRECSIN*

## A COMPARISON OF KNOWLEDGE, ATTITUDE AND INTENTION TO PRACTICE THE USE OF DONOR HUMAN MILK AMONG MOTHERS OF PRETERM AND TERM INFANTS IN JOS, PLATEAU STATE

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**Background:** Donor human milk (DHM) is the preferred option for feeding infants when mother's own milk is not available. Premature infants are the commonest users of DHM. Previous studies suggest that mothers who feel vulnerable appear to have a different behaviour and prematurity predisposes mothers to vulnerability. We, therefore, hypothesized that there is a difference in the knowledge, attitude and willingness to use DHM between mothers of preterm and term infants in Jos.

**Methods:** This was a comparative cross-sectional study of 2 groups of mothers of hospitalized neonates in 4 major hospitals in Jos. Group 1 consisted of mother-neonate dyads of preterm neonates and group 2 consisted of dyads of term neonates. An interviewer-administered structured questionnaire was used to

collect data. Knowledge and attitude were assessed using pre-validated scoring scales. Potential influencers of mother's decision to use DHM was assessed using a 5-points Likert Scale. Data analysis was done using the IBM SPSS version 25 software and a p value of  $<0.05$  was considered significant.

**Results:** A total of 157 mother-neonate dyads (78 in group 1 and 79 in group 2) were included. Forty-five (57.7%) in group 1 and 48 (60.8%) in group 2 had awareness about DHM ( $\chi^2=0.153$ ,  $p=0.696$ ). The median knowledge score was higher in group 1 (67.9, interquartile range 25.0) than in group 2 (60.7, 28.6) [Mann Whitney U test 22.89.5,  $p=0.005$ ]. Thirty-two (41.0%) mothers of preterm and 22(27.8%) mothers of term infants had good DHM knowledge ( $\chi^2=3.020$ ,  $p=0.082$ ). Also, 57(73.1%) preterm and 62(78.5%) term mothers had favourable attitude towards DHM

( $x^2=0.646$ ,  $p=0.724$ ). Twenty-nine (37.2%) preterm and 26(32.9%) term mothers were willing to use DHM ( $x^2=0.314$ ,  $p=0.575$ ) while 65(83.3%) and 56(70.9%) were willing to donate milk ( $x^2=3.441$ ,  $p=0.064$ ) respectively. Good knowledge (aOR=2.974, 95%CI=1.348-6.567), favourable attitude towards DHM (aOR= 3.446, 95%CI=1.208-9.825), willingness to donate milk (aOR= 9.004, 95%CI=1.935-41.895), were significantly associated with willingness to use DHM while being Catholic (aOR=0.227, 95%CI=0.114-0.974) or Muslim (aOR=0.333, 95%CI=0.114-0.974) were less likely to be willing to use DHM husbands, doctors and nurses had a strong influence on their decision about DHM while other members of family and society had weaker influences.

**Conclusion:** Most mothers in Jos did not have good knowledge of DHM and were not willing to use DHM. Mothers of preterms did not differ from their term counterparts in knowledge, attitude and willingness to use DHM. Educational programmes including health care workers, and members of the family are recommended to improve acceptance of DHM. Special attention should be given to Muslim communities to understand the influence of religion on provide DHM in ways that will ensure good uptake.

**Keywords:**

*Donor human milk,  
banked milk, prematurity*

## MATERNAL DIETARY DIVERSITY IN CONFLICT SETTINGS: ACCESS AND AVAILABILITY CHALLENGES IN SOKOTO STATE, NIGERIA

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**Background:** Insecurity and armed conflict have severely undermined maternal dietary diversity and nutrition in Sokoto State, Nigeria. Maternal dietary diversity (MDD) is essential for ensuring adequate micronutrient intake during pregnancy and lactation, with implications for maternal health, child growth, and long-term development. In conflict-affected regions, food systems collapse, displacement disrupts access to markets, and insecurity limits women's ability to access diverse diets.

Sokoto State, Northwestern Nigeria, remains one of the regions most affected by conflict-induced. The study also revealed harmful coping strategies such as begging, child labour, and scavenging. Women in conflict zones face disproportionately high risks due to physiological demands, caregiving responsibilities, and restricted mobility.

**Methods:** This study examined how conflict affects maternal dietary diversity and explored the coping mechanisms adopted by women in affected areas. Guided by social capital theory, the study employed an explanatory sequential mixed-methods approach. Two conflict-affected LGAs, Sabon-Birni and Illela were purposively selected. A cross-sectional quantitative survey involving 768 pregnant and lactating women was carried out using a multistage sampling technique. Clusters of conflict-impacted communities were identified, and households were selected to ensure diversity in size, socioeconomic background, and other characteristics. Structured questionnaires incorporating the Household Food Insecurity Access Scale (HFIAS) were administered, alongside questions on food patterns, income, and coping strategies. Data were collected from 768 women in Illela and Sabon-Birni LGAs through surveys, interviews, and focus group

discussions, and analysed using SPSS 27 and NVivo 23.

**Results:** Findings revealed that 71.9% of respondents sometimes faced food access challenges due to insecurity, while 82.2% reported worsened access to nutritious food since the conflict began. Local food production was severely (39.5%) or moderately (33.1%) disrupted. The majority (90.8%) relied on market purchases, while food aid was deemed largely ineffective (63.6%). Logistic regression identified significant predictors of maternal dietary diversity: duration of displacement (OR=3.100), refugee status (OR=3.100), and location (Sabon-Birni LGA, OR=1.850). Qualitative data revealed widespread adoption of harmful coping mechanisms such as begging, child labour, and scavenging, driven by restricted farming and food scarcity caused by insecurity.

**Conclusion:** Conflict and insecurity severely undermine maternal food security and dietary diversity in Sokoto State. Interventions should prioritize both immediate nutritional support and long-term food system restoration. Strengthening local resilience, improving safety, and supporting alternative livelihoods are essential to enhancing maternal nutrition in conflict-affected communities.

**Keywords:** *Maternal Health, Food Security, Food Insecurity, Conflict, Nutrition, Dietary Diversity, Nigeria*



## MALE PARTNER'S PARTICIPATION IN PRE-AND POST-NATAL CARE IN IBADAN-NORTH LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

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**Background:** Male partner involvement has increasingly been recognized as a critical determinant of maternal and newborn health outcomes, influencing women's ability to access antenatal and postnatal services and adhere to recommended care.

Male involvement is critical to better maternal and infant health outcomes. This mixed-methods study examined the nature, extent and determinants of male partners' participation in pre- and post-natal care in Ibadan North LGA, Oyo State. Despite growing recognition of men's role in improving maternal and child health outcomes, male engagement in maternal care remains limited due to entrenched gender norms, socio-economic barriers, and institutional constraints.

**Methods:** This study utilised a cross-sectional survey design and administered 422 copies of questionnaire and complementary 24 in-depth interviews (IDIs), 4 key informant interviews (KIIs), and 4

focus group discussions (FGDs). The Theory of Gender and Power (TGD) and the Social Ecological Model (SEM) guided the study to map the forms of partners' involvement across antenatal, delivery, and postnatal stages and investigated socio-cultural, economic, and health-system drivers. Quantitative data were analysed with descriptive and inferential statistics, while qualitative data underwent thematic analysis.

**Results:** It showed that most respondents were aged 30–39 years (44.8%) and 20–29 years (31.3%). The majority (76.1%) were married, and were recently pregnant women. Educational attainment was relatively high, with 40.8% having secondary education and 39.3% holding a bachelor's degree. Trading (44.3%), private-sector work (22.5%) and artisans (19.2%) were the most common occupations of the respondents. Most (65.4%) respondents had two or three children and had resided in Ibadan North for

over five years (50.2%). Respondents indicated that partners provided emotional supports during and after birth (36.5%), encouraged proper nutrition (36.0%), and attended antenatal and postnatal sessions (18.2%). A majority (64.2%) of the respondents reported that male partners paid the full hospital bill at delivery. Work demands and financial constraints were the strongest barriers to accompaniment, with workplace proximity significantly associated with frequency of attendance ( $\chi^2 = 5.97$ ;  $df = 4$ ;  $p < 0.05$ ). Qualitative findings contextualised gender norms and healthcare practices as men primarily serving as providers rather than caregivers. At the same time, a growing number of younger and more educated men demonstrated a shift toward shared responsibility, participating in household chores, emotional support, and decision-making on maternal health. Additional insights from the qualitative component revealed that men's participation was shaped by the intersection of socio-cultural expectations and institutional structures. Many respondents cited the influence of traditional Yoruba norms, where pregnancy and childbirth are considered female domains. However, evolving gender roles and increasing exposure to

health education programmes, especially through community health workers and urban awareness campaigns, are gradually transforming these attitudes. Social support networks and marital communication were also identified as important predictors of male engagement. Younger men, particularly those below 35 years and with higher education, were more inclined to attend antenatal sessions and participate in postnatal responsibilities, indicating a generational shift in perceptions of fatherhood and caregiving.

**Conclusion:** The findings from the study highlighted that interventions to improve maternal outcomes should move beyond messaging to men and incorporate male-friendly service design, workplace policies (paternity leave/flexibility), and community-level norm-shift strategies. These findings reinforce broader evidence that male engagement is a multidimensional construct and that effective programmes require multi-level, culturally sensitive approaches.

**Keywords:** *Male Involvement, Prenatal Care, Postnatal Care, Yoruba Culture, Gender Norms, Maternal Health, Nigeria*

## MATERNAL HEALTH SERVICES UTILIZATION AND SATISFACTION: THE EXPERIENCE OF MOTHERS IN ABBA NA SHEHU WARD, JOS NORTH LGA, PLATEAU STATE, NIGERIA

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**Background:** Maternal healthcare service utilization is central to preventing maternal and neonatal morbidity and mortality. However, access to, continuity of, and satisfaction with maternal healthcare services often vary across communities due to social, economic, and health system factors. This study assessed the availability, accessibility, and utilization of maternal health services and mothers' satisfaction with care in Abba Na Shehu Ward, a semi-urban community in Jos North LGA, Plateau State. The specific objectives were to determine the pattern of maternal health service utilization across antenatal, delivery, postnatal, family planning, and maternal immunization components, and to identify the socio-demographic and health system factors associated with utilization and satisfaction.

**Methods:** A community-based cross-sectional study was conducted among 381 women who had delivered within

the previous two years. Respondents were selected using a multistage sampling technique involving random selection of clusters and households. Data were collected using an interviewer-administered questionnaire adapted from the WHO maternal health assessment tools and UNICEF Multiple Indicator Cluster Surveys (MICS). Ethical approval was obtained, and informed consent was secured from all participants. Data were analysed using SPSS version 27. Descriptive statistics summarized utilization patterns, while chi-square tests determined associations at a 5% level of significance.

**Results:** The study included 381 respondents with a mean age of  $28.8 \pm 6.8$  years. Most were married (97.1%), self-employed (92.9%), and had completed secondary education (63.5%). More than half (53.3%) had 4–6 children, and most (92.1%) earned  $\leq 50,000$  monthly. All assessed facilities were adequately equipped

for maternal and neonatal care. All facilities offered antenatal, delivery, and family planning services, but one private clinic did not provide postnatal care.

The majority of respondents (98.4%) utilized antenatal care (ANC) services, though attendance varied in frequency. Among those who attended, 17.1% had up to four visits, while only 10.1% completed the recommended eight trips. However, only 25.7% received these services within the ward. While antenatal care utilization among mothers was very high (98.4%), this did not fully translate into facility-based deliveries. A substantial proportion of mothers, 26.4%, delivered at home, with assistance primarily from traditional birth attendants (46.9%) and family members (40.8%). Factors associated with ANC attendance and delivery included marital status ( $p < 0.001$ ), education ( $p < 0.001$ ), income ( $p = 0.046$ ), and accessibility ( $p < 0.001$ ). Logistic regression identified education (OR = 1.78  $p = 0.012$ ) and accessibility (OR = 1.604,  $p = 0.018$ ) as significant predictors of facility delivery. Only 29.9% of respondents received postnatal care, and utilization was limited by service cost (27.5%) and spousal or family

disapproval (25.5%). Family planning awareness was high (85.8%), but only about 27.03% were using modern contraceptives. Major barriers to use were fear of side effects (84.2%) and family disapproval (9.02%). Satisfaction with maternal health services was generally high (92.1%), though waiting time had the lowest satisfaction (54.9%).

**Conclusion:** High utilization of antenatal care and maternal immunization in Abba Na Shehu Ward reflects engagement with maternal health programs. Satisfaction with services was high, largely due to positive providers attitudes and respectful care, although improvements in waiting time is still required. Addressing barriers to skilled birth attendants, improving postnatal service access, and expanding family planning counselling are essential to ensure continuity of care and improve maternal and neonatal outcomes.

**Keywords:** *Maternal Healthcare Services, Utilization, Satisfaction, Antenatal Care, Skilled Birth Attendant, Postnatal Care, Family Planning, Nigeria.*

## KNOWLEDGE AND ATTITUDE TOWARDS ACCEPTABILITY OF CHILD ADOPTION AMONG ADULTS IN OHAUKWU LOCAL GOVERNMENT AREA, EBONYI STATE, NIGERIA

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**Background:** Child adoption is a universal concept that provides legal rights for adopters and adoptees to become a family. Thus, the adopted child can access good quality of life in a family setting. Despite the National Child Rights Act enacted in 2003 that seeks to regulate the welfare of children including child adoption practices, most Nigerians do not understand the concept of child adoption and the policy regulating it. The study assessed knowledge and attitude towards acceptability of child adoption among adults in Ohaukwu Local Government Area, Ebonyi State, Nigeria.

**Methods:** A descriptive cross-sectional study among 430 adults using multistage sampling technique to select participants and an interviewer administered questionnaires was used to generate quantitative data. After administering the questionnaire, data was analysed

with the use of SPSS 26 version. Descriptive statistics (frequency table and indices) was generated for the demographic variables while Chi-square test was used to determine any significant association between knowledge and attitude towards acceptability of child adoption, and p-value test at  $p < 0.05$  significant level.

**Results:** The results showed that majority of the respondents had good knowledge of child adoption with percentage of 79%. The number of adoptions was as low as 18 (4.2%) among the respondents.

The attitudes towards child adoption as expressed, shows that many people are willing to adopt a child, while some do not show interest. The overall attitude showed 54% positive and 46% negative responses towards child adoption, and there was 61% low and 39% high acceptability rates among the participants respectively. Culture and fear of social Stigma were seen as

the most significant factors affecting adoption, with 63.72% and 66.74% respectively.

**Conclusion:** Majority of the respondents has heard about child adoption from different sources but the numbers of respondents who have adopted a child were very low. The adults' knowledge and attitude towards acceptability of child adoption are determined by one's biological children, misconception, culture and religion practice, level of education, family pressure and level of support, financial strength, child origin and fear of illegitimate child.

Adults in the community with higher educational status are likely to have better knowledge and positive attitude to the acceptance of child adoption than adults with low educational status. Public health practitioners should create more awareness on the viability of child adoption as an alternative solution for infertility, and social responsibility to child welfare in the community.

**Keywords:** *Knowledge, Acceptability, Child Adoption, Nigeria*

## UTILIZATION OF ARTIFICIAL INTELLIGENCE AMONG HEALTH WORKERS TO ENHANCE VACCINATION COVERAGE IN IBADAN-NORTH LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

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**Background:** Vaccination is a key public health strategy for preventing childhood diseases and reducing mortality, yet coverage in Nigeria remains below target, mainly due to issues such as data quality issues, inadequate follow-up, and systemic health constraints. Artificial Intelligence (AI) presents more opportunities to boost vaccination initiatives by providing health workers with automated reminders, tracking systems, decision-support systems and predictive analytics. This study examined the knowledge, perceptions, utilization, and factors influencing AI use in vaccination programs among health workers in Ibadan-North Local Government Area, Oyo State, Nigeria, providing insights into the knowledge and perceptions that impact vaccination and informing strategies to enhance AI integration in vaccination services.

**Methods:** This research employed a descriptive cross-sectional design using a mixed-method approach, in surveying health workers within Ibadan-North Local Government Area, Oyo State. Through a multi-stage sampling technique, 422 respondents were sampled from the selected healthcare facilities. Data were collected using a semi-structured, interviewer-administered questionnaire and key informant interviews to determine respondents' socio-demographic characteristics, knowledge, perceptions, use, and factors influencing AI use. The questionnaire's reliability was verified with a Cronbach Alpha score of 0.74, ensuring the consistency of responses. Data analysis was conducted using SPSS IBM version 25, applying descriptive statistics with tables and charts and thematic analysis for qualitative responses.



**Results:** The respondents were predominantly female, aged 40 to 49 years, with most belonging to the Yoruba (86.5%) ethnic group. Education levels were high, with 61% having a Bachelor of Science (BSc) degree, while the majority (80.3%) were in the Clinical Department, and engaged in direct care and vaccination services. Respondents reportedly had varying years of experience. Findings also indicated that health workers are aware of AI in varying degrees of knowledge with 38.9% of respondents acquiring knowledge through professional seminars. About half (51.9%) of the respondents possessed proficient computer skills to enhance AI utilization. The study revealed that 35.1% of the respondents recognized tracking system, 25.6% recognized decision support systems and 22.3% recognized AI-powered chatbots. Positive insights toward AI were revealed, with large majority (96.2%) of respondents believe AI improves efficiency in vaccination services, even though more than half (60.2%) of the respondents expressed concerns about potential job displacement. However, finding in the study revealed the significant barriers to service utilization by health workers. Inadequate training influenced the use of AI with only 26.7% attended online courses and 26.5% attended workshops or conferences. Funding was a critical factor although 53.1%

revealed the Government to be their source of funding but the lack of infrastructure and access to reliable internet connectivity has considerably limited the utilization of AI among health worker for vaccination services.

**Conclusion:** The findings highlighted substantial gaps in maternal and child health knowledge and AI integration, particularly for vaccination services, despite positive insights. Key factors affecting integration included inadequate training, poor infrastructure, and limited governmental investment in digital health systems. The study recommends creating capacity-building structures for health workers, investing in digital infrastructure, and enacting supportive policies to enhance technology-driven interventions for good health outcomes in Ibadan North LGA, Nigeria.

**Keywords:** *Artificial Intelligence, Vaccination Coverage, Nigeria, Digital Health, Health Workers, Nigeria*



